Introductory Remarks of Rep. Edward J. Markey at the Nuclear Y2K Symposium Monday March 8, 1999

The 1950's were a great decade. Bobby Soxers and sock hops, Buddy Holly and Elvis Presley, Rock Hudson and Doris Day. The 50's also saw the rise of two major industries in the United States that profoundly shape our lives today. Digital computers took off in 1956 and never looked back. Uses and needs for computers blossomed so fast that they had to cut a few corners, like lopping off the first two digits of the year. Nobody thought the early software written then would last into the next century anyway. Commercial nuclear power also got its start back in the 1950's, with even higher hopes of providing America with electricity that would be "too cheap to meter." Over the years we discovered that they cut some corners too, including some that posed risks for public safety. And over the years market forces have brought the costs of computers down while improving their efficiency. At the same time, high cost and concerns about safety have led the nuclear industry to wither on the vine—not a single new reactor has been successfully ordered in the U.S. since 1974.

Now, four decades after the birth of the computer and nuclear power industries, we find that the corners cut in computers and the corners cut in nuclear plants have boxed us into a corner. Nuclear plants are infested with Y2K computer bugs; an audit at one plant, Seabrook in New Hampshire, found 1304 Y2K problems, including 12 with "safety implications" and another 13 that could shut down the reactor. The NRC claims that they have no evidence of Y2K problems with safety-related systems, that the reactor controls are analog and therefore immune from the Y2K "disease." But the digital readouts on which plant operators rely are susceptible to the disease. False information could lead to dangerously bad decisions. And the Y2K disease can be contagious. If Y2K problems in the electrical utilities shut down some of the Nation's electrical grids, then nuclear plants will have to "scram"—shut down—and they will have to rely on their backup diesel generators to keep the coolant flowing and the radioactive fuel intact. But those diesel generators, built for just such an emergency, sometimes turn out not to work. If the nuclear stations black out, we all may have to scram as well.

Perhaps lost in nostalgia for the 50's, nuclear utilities have been slow in coming to grips with the Y2K monster. And NRC has mostly relied on industry action and reporting, rather than adopting a more aggressive "trust but verify" approach. In fact, the NRC reports that it plans to audit progress on Y2K issues at only 12 of the Nation's nuclear plants. Those audits that have been conducted so far have found significant attention being paid by the industry to the Y2K issue but also thousands of bugs that are yet to be fixed, some of which would cause plant shutdowns. In addition, the audits found that some plants, such as Brunswick in North Carolina, are relying on vendors to certify the Y2K readiness of their products, while others, such as Hope Creek in New Jersey, have found such vendor certifications to be unreliable. Plants that have done Y2K testing have sometimes been surprised. At the Peach Bottom plant in Pennsylvania last month the primary and backup monitoring computers crashed for seven hours due to Y2K testing. And in Sweden a reactor's computers failed when the date was advanced, not even to the year 2000, but to September 1999.

NRC's contingency plans in case problems do show up on New Years Day also are somewhat *laissez faire*. It is particularly disturbing to some of us that the NRC Draft Contingency Plan provides for letting plants violate their licenses and keep running in order to make sure electricity remains available. Somehow preserving "public health and safety" has been twisted to mean keeping the plants running in less-than-safe conditions, not shutting the plants down when necessary.

In the 1950's sci-fi movie, humanity was saved from the nuclear baby Godzilla. We still have time before the clock strikes 2000 to meet the nuclear Y2K monster. Here to tell us how, we have a distinguished group of panelists who will address various aspects of this important issue. I'm sure you

will want to join me in thanking them for coming here today.